1   1.   (Amended)   A method for generating faster discrete cosine

2   transforms, comprising:

3   arranging discrete cosine transform equations into at least one collection of at

4   least two discrete transform equations, wherein the collection includes at least two

5   discrete cosine transform constants;

6   scaling the discrete cosine transform equations in the at least one collection

7   by dividing each of the discrete cosine transform constants in the collection by one

8   of the discrete cosine transform constants from the at least one collection; and

9   representing each of the scaled discrete cosine transform constants with

10   sums of powers-of-2 that are approximations for the scaled discrete cosine

11   transform constants.

12   (Amended)   A data compression system, the data compression

2   system comprising a discrete cosine transformer for applying a discrete cosine

3   transform to decorrelate data into discrete cosine transform equations, the discrete

4   cosine transform equations having been formed by arranging the discrete cosine

5   transform equations into at least one collection of at least two discrete transform

6   equations, wherein the collection includes at least two discrete cosine transform

7   constants, scaling the discrete cosine transform equations in the at least one

8   collection by dividing each of the discrete cosine transform constants in the

9   collection by one of the discrete cosine transform constants from the at least one

10   collection and representing each of the scaled discrete cosine transform constants

11   with sums of powers-of-2 that are approximations for the scaled discrete cosine

12   transform constants.

25. (Amended) A printer, comprising:

a memory for storing data;

a processor for processing the data to provide a compressed print stream output; and

a printhead driving circuit for controlling a printhead to generate a printout of the data;

wherein the processor applies a discrete cosine transform to decorrelate data into transform coefficients using discrete cosine equations, the discrete cosine transform equations having been formed by arranging the discrete cosine transform equations into at least one collection of at least two discrete transform equations, wherein the collection includes at least two discrete cosine transform constants, scaling the discrete cosine transform equations in the at least one collection by dividing each of the discrete cosine transform constants in the collection by one of the discrete cosine transform constants from the at least one collection and representing each of the scaled discrete cosine transform constants with sums of powers-of-2 that are approximations for the scaled discrete cosine transform constants.

36. (Amended) An article of manufacture comprising a program storage

2 medium readable by a computer, the medium tangibly embodying one or more

3 programs of instructions executable by the computer to use equations created by a

4 method for generating faster discrete cosine transforms, the method comprising:

5   arranging discrete cosine transform equations into at least one collection of at

6 least two discrete transform equations, wherein the collection includes at least two

7 discrete cosine transform constants;

8   scaling the discrete cosine transform equations in the at least one collection

9 by dividing each of the discrete cosine transform constants in the collection by one

10 of the discrete cosine transform constants from the at least one collection; and

11   representing each of the scaled discrete cosine transform constants with

12 sums of powers-of-2 that are approximations for the scaled discrete cosine

13 transform constants.

47. (Amended Twice)   A data analysis system, comprising;

a memory for storing discrete cosine transform equations having been formed

by arranging discrete cosine transform equations into at least one collection of at

least two discrete transform equations, wherein the collection includes at least two

discrete cosine transform constants, scaling the discrete cosine transform equations

in the at least one collection by dividing each of the discrete cosine transform

constants in the collection by one of the discrete cosine transform constants from the

at least one collection and representing each of the scaled discrete cosine transform

constants with sums of powers-of-2 that are approximations for the scaled discrete

cosine transform constants; and

a transformer for applying the transform equations to perform a discrete

cosine transform to decorrelate data into discrete cosine transform coefficients.